

IACTalks: an on-line archive of astronomy-related seminars

Johan H. Knapen^{1,2}, Jorge A. Pérez Prieto¹, Tariq Shahbaz^{1,2}, Anna Ferré-Mateu^{1,2}, Nicola Caon^{1,2}, Cristina Ramos Almeida^{1,2}, Brandon Tingley^{1,2}, Valentina Luridiana^{1,2}, Inés Flores-Cacho^{1,2,3,4}, Orlagh Creevey^{1,2,5}, Arturo Manchado Torres^{1,2,6}, Ignacio Trujillo^{1,2}, Maria Rosa Zapatero Osorio^{1,2,7}, Francisco Sánchez Martínez^{1,2}, Francisco López Molina¹, Gabriel Pérez Díaz¹, Miguel Briganti¹, Inés Bonet¹

¹Instituto de Astrofísica de Canarias, E-38205 La Laguna, Tenerife, Spain

²Departamento de Astrofísica, Universidad de La Laguna, E-38206 La Laguna, Tenerife, Spain

³CNRS, IRAP, 9 Av. colonel Roche, BP 44346, F-31028 Toulouse cedex 4, France

⁴Université de Toulouse, UPS-OMP, IRAP, F-31028 Toulouse cedex 4, France

⁵Laboratoire Lagrange, UMR 7293, CNRS (OCA), Université de Nice Sophia-Antipolis, Nice, France

⁶Consejo Superior de Investigaciones Científicas, Spain

⁷Centro de Astrobiología (CSIC-INTA), Ctra. Ajalvir km. 4, 28850 Torrejón de Ardoz, Madrid, Spain

Abstract

We present IACTalks, a free and open access seminars archive (<http://iactalks.iac.es>) aimed at promoting astronomy and the exchange of ideas by providing high-quality scientific seminars to the astronomical community. The archive of seminars and talks given at the Instituto de Astrofísica de Canarias goes back to 2008. Over 360 talks and seminars are now freely available by streaming over the internet. We describe the user interface, which includes two video streams, one showing the speaker, the other the presentation. A search function is available, and seminars are indexed by keywords and in some cases by series, such as special training courses or the 2011 Winter School of Astrophysics, on secular evolution of galaxies. The archive is made available as an open resource, to be used by scientists and the public.

1 Introduction

Since April 2008, the Instituto de Astrofísica de Canarias (IAC) has been webcasting and archiving the weekly seminars and monthly colloquia about the most exciting topics in astronomy and astrophysics' research. The IAC is one of the leading centres for astrophysical research and related technology development in Spain, and has a staff of over 350, of which over 160 are active in astronomy research.

The seminars cover both observational and theoretical astronomy and include diverse topics such as particle and stellar physics, galaxies and cosmology, and astronomical instrumentation and telescopes. The seminars are aimed at a general astronomical audience and mainly given by postdocs and staff astronomers. The speakers in our special “colloquia” are high-profile scientists and over the years have included leading astronomers from all over the world, covering practically the complete spectrum of current-day astrophysical research.

While most of the archived seminars are on astrophysical research, the IACTalks archive also contains seminars on various topics relating to astronomical telescopes and instrumentation, and programming and (super)computing.

Other on-line seminars include the webcasting and archive service of the Space Telescope Science Institute (<https://webcast.stsci.edu/webcast/>), going back to 2001, or the recently started seminar series at <http://asterisk.apod.com/ampersand/>. IACTalks is complementary to these and other initiatives.

2 The IACTalks web archive

The archive, accessed via the web address <http://iactalks.iac.es> (see Fig. 1), currently contains over 360 seminars, recorded since April 2008. Of these, 45 form part of the “colloquium” series, for which the IAC invites renowned speakers from anywhere in the world to spend a week at the institute to interact with staff and students, and to give a seminar.

The various seminars are organized in 13 categories, and each seminar is labelled with a number of keywords. The web interface allows browsing through the available talks, searching for names or keywords, or browsing by categories (such as galaxies, planetary systems, or the Sun) or series. The latter include recordings of workshops and courses, including the XXIIIrd Canary Islands Winter School, held in November 2011 in Tenerife on the topic of secular evolution in galaxies.

Seminars at the IAC are broadcast over the internet and can be watched either live or in the archived form described here. We capture a direct video feed of the slides as they appear on the screen and a fixed camera also films the speaker during the presentation. Both these videos appear on the webcast, and either can be enlarged to fill the screen of the viewer. Figure 2 shows a screenshot of the appearance during playback. We use a web-based player (Flowplayer), so only a HTML5 compliant browser with Adobe Flash is required.

3 Future improvements

While our current system should work without problems on most browsers, in the near future we plan to release a specific interface for full compatibility with mobile devices, including Apple hand-held devices which do not support Flash technology. We also plan to release integration to social networks.

In addition, we are considering using free on-line services (such as those provided by Google and YouTube) to provide automatically-generated transcripts of all seminars, which can then also be translated automatically into a multitude of languages, and/or superimposed as subtitles. While this will not guarantee accurate reflections of everything a speaker says, especially when jargon is involved, our initial tests have shown that the results of this exercise can make the seminars available to a huge world-wide audience of interested amateur astronomers who lack the language skills to follow a seminar in English, but can get the essence of a presentation when it is supported by subtitles in their own language.

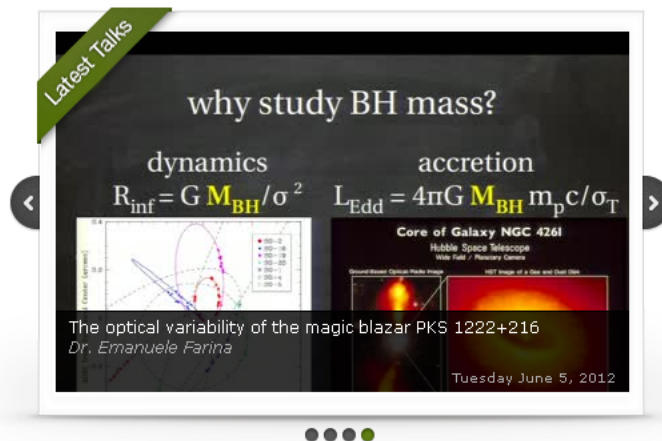
4 Conclusions

This short note is aimed to announce the launch of the IACTalks website, <http://iactalks.iac.es>, which yields free and open access to a large archive of seminars, aimed at promoting astronomy and the exchange of ideas by providing high-quality scientific seminars to the astronomical community. The archive of seminars and talks given at the Instituto de Astrofísica de Canarias goes back to 2008, and now contains over 360 talks and seminars available by streaming over the Internet. We have described the main features of the website, and outlined future plans for further development.

Astronomy & Astrophysics Seminars
from the Instituto de Astrofísica de Canarias

Open Astronomy Seminars

IAC Talks is a **free** and **open access seminars archive** aimed at promoting astronomy and the exchange of ideas by providing high quality scientific seminars to the astronomical community.



abundances accretion, accretion discs active galaxies black holes
CanariCam CMB dark matter distance scale early universe
early-type galaxies exoplanets fundamental physics galactic
dynamics galactic formation galactic kinematics galactic
structure galaxy evolution Grantecan, GTC HII regions
large-scale structure massive stars particle physics programming
language science SDSS software solar magnetic fields star
formation star forming galaxies stellar populations

UPCOMING TALKS

- > Spectra of Transiting Extrasolar Planets: Past, Present, and...
Dr. Peter McCullough
Monday June 25, 2012
- > The 1D plane-parallel PDR model and its application
Dr. Jonathan Heiner
Tuesday June 26, 2012
- > The evolution of the human vision and the impact on astronom...
Dr. Héctor Castañeda
Tuesday July 3, 2012

FEATURED TALKS



Molecular gas in galaxies, and evolution with redshift
Prof. Françoise Combes



The Coevolution of Black Holes and Galaxies: A 10-Year Progr...
Prof. Luis C. Ho



Dark Energy and Cosmic Sound
Dr. Daniel Eisenstein

Figure 1: Screenshot of the homepage

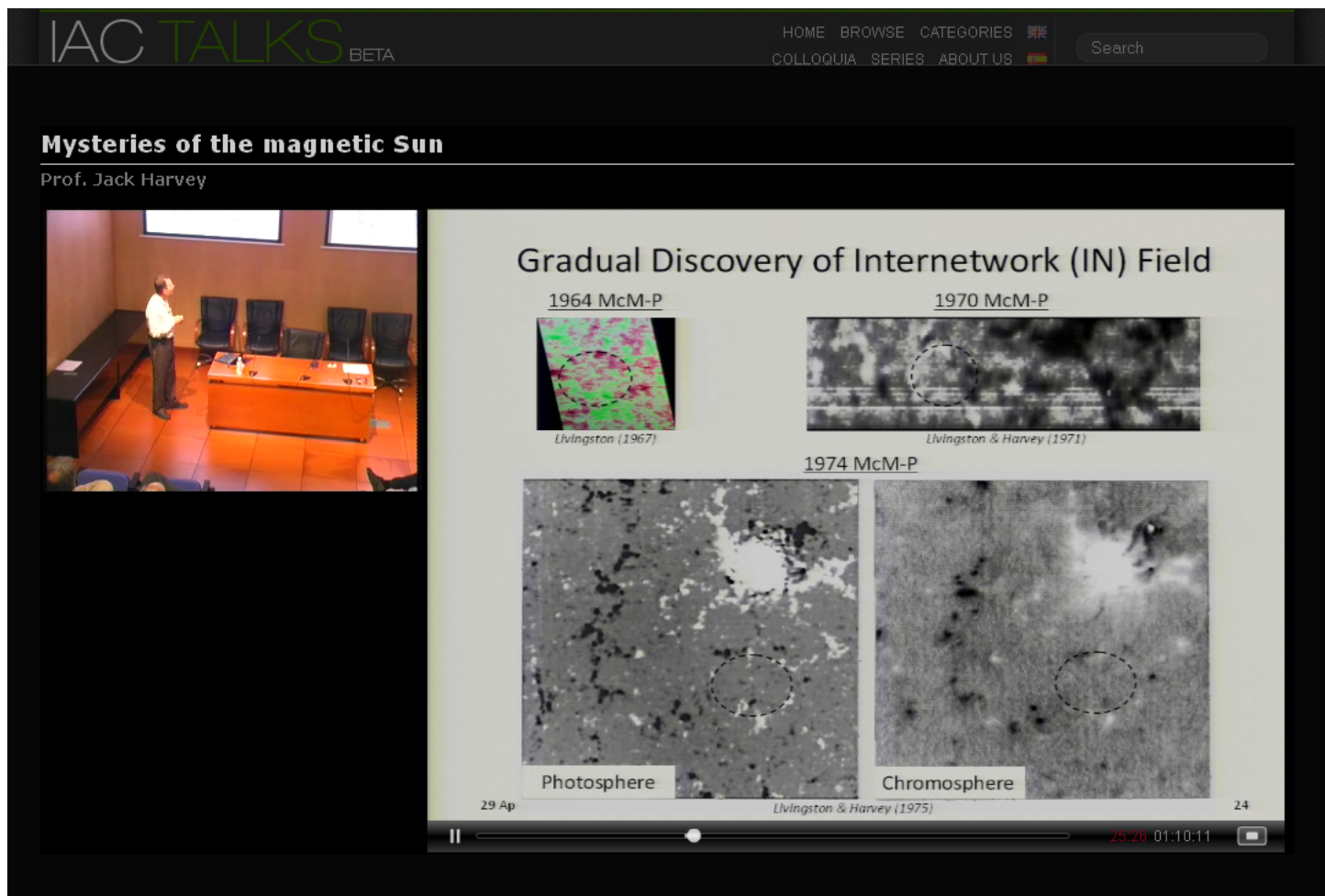


Figure 2: Screenshot of the appearance of a talk during playback.